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SOYBEANS

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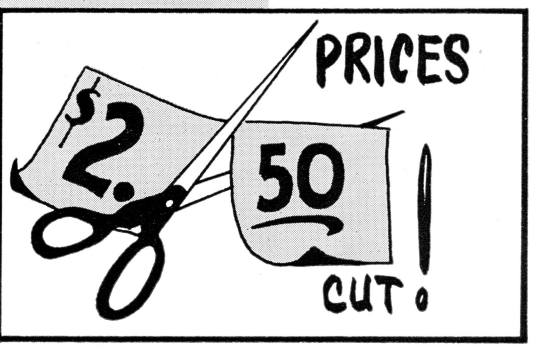

by Gaylord Worden

SOYBEANS, the second most important crop in Iowa and the Corn Belt, have become a problem crop. Like corn, sorghum, wheat and cotton, U.S. farmers now seem to be using their production capacity to consistently produce more soybeans than can be used at current prices. In fact, if farmers follow their March 1 planting intentions, 1969 will be the fifth straight year in which soybean production exceeded utilization.

The natural result of the larger production than use in soybeans from 1965-68 was a buildup in the stocks on hand at the end of each marketing year. From about 30 million bushels on hand when the 1965 crop was ready to be harvested, stocks of soybeans will have increased to 315 million bushels before the 1969 crop is harvested (Table 1). This will be an increase of nearly 150 million bushels in the last year alone. Most of the 315 million bushel carryover will end up in government hands. The Commodity Credit Corporation will have an investment of about two-thirds of a billion dollars in soybeans by Sept. 1, 1969.

With another record acreage to be planted in 1969 we can reasonably expect to have another increase in soybean stocks by the end of the 1969-70 marketing year. U.S. farmers surveyed on March 1 indicated they would plant 42,997,000 acres of soybeans in 1969. This would result in a harvested acreage of about 42,100,000 and a total production of 1,080 million bushels based on an average yield per acre. Even if we are optimistic about use of the 1969 crop, stocks could increase by another 75 to 100 million bushels. This excess would be production from about 3 to 4 million acres or 7 to 9 percent of the 1969 crop.

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What is Being Done?

In his first major farm program decision, Secretary of Agriculture Clifford Hardin lowered the government support price on soybeans from $2.50 for a bushel of No. 2 soybeans to $2.25 for No. 1 soybeans. This change could mean that U.S. farmers will receive a lower price for the 1969 soybean crop which in turn would lead to lower farm income. The eight North-Central states of Minnesota, Iowa, Missouri, Wisconsin, Illinois, Michigan, Indiana and Ohio could be affected significantly as they produce nearly two-thirds of the crop. Iowa alone produced 16.5 percent of the U.S. soybean crop in 1968.

Advisors to the Secretary estimated that a continuation of the $2.50 support price would result in a burdensome carryover in soybean stocks of over 600 million bushels by the end of the 1970-71 marketing year. The lower support price hopefully will have enough effect on both supply and demand for soybeans to avoid part of the $1.5 billion government investment in such a large carryover.

The drop in support price for 1969 was the first change since 1966. At that time the price was raised to $2.50 after having been at $2.25 for four years (Table 2). In 1967 and 1968 the average price received by farmers was less than the average support price for the first time since 1961. This was due to the rapid buildup of stocks since 1966.

Since the lower support price was announced after the March 1 survey of planting intentions, there may be some reduction in the intended plantings of 43 million acres for 1969. The first indication of whether or not the lower support price will slow down production in 1969 will come from USDA's July 1 report on acres planted. Farm program decision makers will watch this report very carefully.

The lower support price should have some effect in increasing the demand for soybeans. The $2.50 price of the past two years priced soybean oil out of the dollar export market and markets were lost to competitive oils. April 1 estimates by the U.S. Department of Agriculture indicate that 93 percent

TABLE 1. Soybeans: Supply and disposition, year beginning Sept. 1, 1959-68.

Item	Marketing Year Beginning September 1									
	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968
	(Million bushels)									
Supply										
Stocks	87.8	51.8	27.1	78.3	46.0	67.3	29.7	35.6	90.1	166.6
Production	532.9	555.1	678.6	669.2	699.2	700.9	845.6	928.5	976.1	1,079.7
Total Supply	620.7	606.9	705.7	747.5	745.2	768.2	875.3	964.1	1,066.2	1,246.3
Disposition										
Crushings	394.0	406.1	431.4	472.7	436.8	479.0	537.5	559.4	576.4	585.0[1]
Exports	139.9	134.7	149.4	180.5	187.2	212.2	250.6	261.6	266.6	285.0[1]
Seeds	29.3	32.5	33.3	34.6	36.0	40.3	42.9	47.1	48.2	
Feed	1.5	1.3	1.3	1.1	.9	.9	.9	1.0	.9	61.0[1]
Residual	4.2	5.2	12.0	12.6	17.0	6.1	7.8	4.9	7.5	
Total disposition	568.9	579.8	627.4	701.5	677.9	738.5	839.7	874.0	899.6	931.0[1]
Stocks at end of marketing year	51.8	27.1	78.3	46.0	67.3	29.7	35.6	90.1	166.6	315.3[1]

[1]Forecast

of the oil to be exported from the 1968 crop will be subsidized exports under Public Law 480. Also, urea has partially displaced soybean meal in the United States in feed for ruminant animals. The lower support price should allow soybeans to compete more effectively for these markets again.

Is the Problem Solved?

The problem of over-production of soybeans probably will not be solved by just lowering the support price to $2.25. There is the definite possibility that increased demand for soybeans will continue to grow at a slower rate than in the early 1960's and that soybean production will continue to increase in future years at the $2.25 price.

In the near-term demand outlook, the European Common Market is considering an internal consumption tax on use of soybean products. The ECM countries have a large surplus of dairy products, including butter. They would like to reduce the competition from margarine made from soybean oil. This tax also would make it more expensive for farmers in the ECM to feed soybean meal, encouraging a decrease in dairy production.

Another problem is the increase in the production of crops that compete for soybean markets. In 1969 the U.S. cotton program calls for an increase in cotton production and thus a larger supply of cottonseed oil and meal. The 1969 U.S. wheat program resulted in a reduction in the acres planted to wheat in the Northern Plains. While land diverted from wheat production cannot be used for flax under the rules of the wheat program, the smaller wheat acreage frees labor and capital for flax production on other land.

The March 1 planting intentions survey indicated a 10 percent increase in cotton acres and a 24 percent increase in flax acres for 1969. At the same time world production of cotton is increasing and further increases may be forthcoming in oil from sunflower seed production in the Soviet Union.

In the demand outlook for the next few years, possible rapid development and adoption of high lysine corn loom very large. This new type of corn is higher in protein content than present strains so its use could decrease the need for soybean meal in animal feeds.

The other side of the question is: Will the lower support price of $2.25 per bushel cause a cutback in production? And, what will farmers produce if they don't grow soybeans? This, of course, depends on the prices of alternative crops and the profit per acre that farmers can expect from raising an alternative crop.

In the eight North-Central States that produced 67.8 percent of the 1968 soybean crop, corn is the crop that is most competitive with soybeans. Cost and return analyses show that soybeans at $2.25 per bushel are still good profit competitors with corn priced at $1-$1.05 per bushel. And corn prices are not likely to increase significantly over any extended period of time because of the availability of the large acreage now being diverted from corn production under the feed grain program. In addition, the return per acre from raising soybeans priced at $2.25 per bushel is still large enough to encourage further modest increases in production in the North-Central states, as the less profitable crops of oats, hay and pasture continue to decline.

The South-Central states of Arkansas, Mississippi and Louisiana produced 16.5 percent of the 1968 soy-

TABLE 2. U. S. average price for soybeans, 1960-69.

Year	Support	Received by farmers
	(Dollars per bu.)	
1960	1.85	2.13
1961	2.30	2.28
1962	2.25	2.34
1963	2.25	2.51
1964	2.25	2.62
1965	2.25	2.54
1966	2.50	2.75
1967	2.50	2.49
1968	2.50	2.42
1969	2.25[1]	

[1]No. 1 grade soybeans. Prior years No. 2 grade. Differential between No. 1 and No. 2 about 5c per bushel.

bean crop. They also account for 60 percent of the planned increase in soybean acres for 1969. Soybeans are a "second best" alternative to cotton production on most farms in these states, so future soybean production will also depend on cotton prices and programs. At the same time, $2.50 soybeans have encouraged clearing and development of significant amounts of new cropland in these South-Central states. The lower support price should result in less encouragement for this kind of acreage expansion but is not expected to stop it.

What are the Possibilities?

If the lower support price of $2.25 does not bring a supply-demand balance in soybeans, what are other possible ways to accomplish this? The most obvious alternatives are:

1. Continue the support price at $2.25 with the government absorbing surplus production.
2. Lower the support price further until supply and demand balance.
3. Pay the soybean support price only to those farmers who participate in other government acreage control programs.
4. Establish a voluntary land diversion program for soybeans.
5. Change feed grain or cotton program payments to cause a reduction in soybean production.

The policy of the government absorbing additional surplus under the first alternative appears to have already been ruled out. The lowering of the support price from 1968 to 1969 is an attempt to avoid the possibility of further increases in government owned stocks. Continued excess production and support price that keeps the price of oil above the world market could lead to further loss in soybean markets. This could have a destructive effect on the long-term outlook for the soybean industry and for producer income from the crop.

The second alternative, making a further reduction in the support price, could let the price of soybeans seek whatever level necessary to achieve a supply-demand balance. How much lower the price would go is the subject of considerable speculation. Some research studies show the price could drop to around $2 per bushel in the foreseeable future if not supported at a higher price.

Reducing price supports also has its problems. The most obvious one is lower farm income. Another problem is the side effect on corn production. A lower soybean price could mean increased production of corn, an increase that does not appear to be needed or desirable. Any significant increase in corn production could lead to lower net farm income also because of lower corn prices.

Limiting the soybean support price for farmers who participate in other government acreage control programs may have some merit. Most farms on which soybeans are produced also have a feed grain base, a wheat allotment, a cotton allotment, a rice allotment, a peanut allotment or some combination of these. The average annual price of soybeans could be somewhat lower than the support price, since some producers would choose to continue to stay out of government programs. Thus, they could receive a price lower than the soybean support price.

This alternative would have to be handled very carefully, however. If the support price for soybeans were too far above the market price, the probable result in the eight North-Central states would be increased enrollment in the feed grain program in order to qualify for the soybean support price. This may in turn lead to more soybean production.

Farms not enrolled in the feed grain program generally raise more corn than their corn base would allow. On non-enrolled farms, the excess runs as high as 35 percent more corn than corn base in some states. If these farmers decide to enroll in the feed grain program, they would be limited to corn plus diversion acres of not more than their corn base. This results in the short-run effect of "freeing up" of acres formerly in corn for use in the next most profitable crop, soybeans.

Controlling the supply of soybeans through a voluntary land diversion program is still another alternative. A program of this type would be very similar to the present feed grain program.

Establishing a soybean base and paying for voluntary diversion could help hold up farm income at the expense of increased costs to the government. Appropriations for this increased cost of farm programs would appear to be difficult to obtain at the present time or in the near future.

The current feed grain program may provide a means to curtail soybean production. If maximum diversion of feed grain acres would result in sufficient additional profit for farmers who now enroll for minimum diversion, there would be more diversion and less corn. As the corn price picture improved because of less corn, farmers who don't enroll in the feed grain program would turn to more corn production and less soybean production. The net results could be increased diversion under the feed grain program, about the same level of corn production and a decrease in soybean production.

This approach also has some of the same problems already discussed. The payment structure of the feed grain program would have to be designed to encourage farmers to divert more of their enrolled corn base but not to encourage more farmers to enroll. The latter would again "free up" acres for soybean production. The increased government cost of more diversion under the feed grain program would also be a problem for this alternative.

Summary

Some very critical years lie ahead for the soybean industry. If the industry can continue to increase its markets while making a modest curtailment in production, it can continue to prosper.

If production continues to exceed use, soybean producers may be faced with the choice of a lower price for their product or production control. Both of these alternatives and the means to accomplish them would pose some new problems for the Iowa farmer.